AMENDMENTS TO THE CLAIMS

Listing of Claims:

1. (Previously presented) A method for increasing seed yield relative to corresponding wild type plants, comprising introducing into a plant a nucleic acid encoding a D-type Cyclin Dependent Kinase (CDKD) resulting in a transgenic plant having increased seed yield relative to a corresponding wild type plant; and selecting a transgenic plant having increased seed yield relative to a corresponding wild type plant.

2. (Cancelled).

3. (Previously presented) The method according to claim 1, wherein said increased seed yield is selected from the group consisting of (i) increased seed biomass; (ii) increased number of (filled) seeds; (iii) increased seed size; (iv) increased seed volume; (v) increased harvest index; and (vi) increased thousand kernel weight (TKW).

4. (Previously presented) The method according to claim 1, wherein said nucleic acid encodes a CDKD which comprises an NXTALRE motif (SEQ ID NO: 6) and a catalytic kinase domain and wherein said nucleic acid is obtained from a plant.

5. (Currently amended) The method according to claim 1, wherein the nucleic acid comprises a nucleic acid sequence selected from the group consisting of:

(i) a nucleic acid sequence represented by the sequence of SEQ ID NO: 1;

(ii) a portion of the nucleic acid sequence represented by the sequence of SEQ ID NO: 1 which encodes a CDKD comprising an NXTALRE motif (SEQ ID NO: 6) and a catalytic kinase domain;

(iii) a nucleic acid sequence which hybridizes to the complement of the full-length nucleic acid sequence represented by the sequence of SEQ ID NO: 1 under stringent conditions of 5X sodium chloride/sodium citrate (SSC) at 55 to 65°C followed by one or more washes in 0.2 X SSC at 55 to 65°C and which encodes a CDKD comprising an NXTALRE motif (SEQ ID NO: 6) and a catalytic kinase domain; and

(iv) ~~an alternative splice variant of~~ a nucleic acid sequence ~~represented by the sequence of SEQ ID NO: 1~~ which encodes a CDKD comprising an NXTALRE motif (SEQ ID NO: 6) and a catalytic kinase domain; ~~and~~

~~(v) an allelic variant of a nucleic acid sequence represented by the sequence of SEQ ID NO: 1 which encodes a CDKD comprising an NXTALRE motif (SEQ ID NO: 6) and a catalytic kinase domain;~~ or

wherein the CDKD comprises ~~an~~ the amino acid sequence ~~represented by~~ of SEQ ID NO: 2 or ~~a homologue, derivative, or active fragment thereof which comprises~~ an amino acid sequence comprising an NXTALRE motif (SEQ ID NO: 6) and a catalytic kinase domain.

6. (Previously presented) The method according to claim 1, wherein said nucleic acid sequence encoding a CDKD is overexpressed in a plant.

7. (Previously presented) The method according to claim 1, wherein expression of said nucleic acid encoding a CDKD is driven by a constitutive promoter.

8. (Previously presented) A method for the production of a transgenic plant having increased seed yield, which method comprises:

(i) introducing into a plant or plant cell a CDKD-encoding nucleic acid or a nucleic acid which encodes a CDKD comprising an NXTALRE motif (SEQ ID NO: 6) and a catalytic kinase domain;

(ii) cultivating the plant cell under conditions promoting regeneration and mature plant growth resulting in a transgenic plant having increased seed yield relative to a corresponding wild type plant; and

(iii) selecting a plant having increased seed yield relative to a corresponding wild type plant.

9-11. (Cancelled).

12. (Previously presented) A transgenic plant obtained by the method of claim 1.

13. (Previously presented) A construct comprising:

(i) a CDKD-encoding nucleic acid or a nucleic acid which encodes a CDKD comprising an NXTALRE motif (SEQ ID NO: 6) and a catalytic kinase domain, wherein the nucleic acid comprises the nucleic acid sequence of SEQ ID NO: 1, a nucleic acid sequence encoding the amino acid sequence of SEQ ID NO: 2, or a nucleic acid sequence encoding a polypeptide comprising an amino acid sequence having at least 95% identity to SEQ ID NO: 2;

(ii) one or more control sequence capable of driving expression of the nucleic acid sequence of (i) which comprises at least a GOS2 promoter; and optionally

(iii) a transcription termination sequence.

14. (Cancelled).

15. (Previously presented) A plant transformed with the construct according to claim 13.

16. (Previously presented) A transgenic plant having increased seed yield relative to a corresponding wild type plant, wherein said plant comprises an isolated nucleic acid encoding a CDKD or a nucleic acid which encodes a CDKD comprising an NXTALRE motif (SEQ ID NO: 6) and a catalytic kinase domain.

17. (Previously presented) The transgenic plant according to claim 16, wherein said plant is a monocotyledonous plant.

18. (Previously presented) Harvestable parts including seed of the plant according to claim 12, wherein the harvestable parts comprise the nucleic acid.

19. (Cancelled).

20. (Previously presented) The method according to claim 1, wherein said seed yield includes one or more of the following: increased number of filled seeds, increased seed weight, increased harvest index and increased TKW.

21. (Previously presented) The method according to claim 1, wherein said CDKD is encoded by a nucleic acid comprising a nucleic acid sequence as represented by SEQ ID NO: 1 or a nucleic acid which encodes a CDKD comprising an NXTALRE motif (SEQ ID NO: 6) and a catalytic kinase domain, or wherein said CDKD comprises an amino acid sequence as represented by SEQ ID NO: 2 or an amino acid sequence comprising an NXTALRE motif (SEQ ID NO: 6) and a catalytic kinase domain.

22. (Cancelled).

23. (Previously presented) The transgenic plant according to claim 15, wherein said plant is selected from the group consisting of sugar cane, rice, maize, wheat, barley, millet, rye, sorghum or oats.

24. (Previously presented) The transgenic plant according to claim 17, wherein said monocotyledonous plant is a cereal.

25. (Previously presented) The transgenic plant of claim 16, wherein the nucleic acid comprises the nucleic acid sequence of SEQ ID NO: 1, a nucleic acid sequence encoding the amino acid sequence of SEQ ID NO: 2, or a nucleic acid sequence encoding a polypeptide comprising an amino acid sequence having at least 95% identity to SEQ ID NO: 2.

26. (Currently amended) A method for obtaining plants having increased seed yield relative to a corresponding wild type plant comprising

(a) cultivating a transgenic plant or transgenic seed, which plant or seed ~~comprises~~ are transgenic for a CDKD-encoding nucleic acid or a nucleic acid which encodes a CDKD comprising an NXTALRE motif (SEQ ID NO: 6) and a catalytic kinase domain;

(b) obtaining a transgenic plant having increased seed yield relative to a corresponding wild type plant; and optionally

(c) harvesting transgenic seed from the transgenic plant obtained in step (b).

27. (Previously presented) A plant comprising the construct of claim 13.